

Work Order ID 82724

\*82724\*

Page 1

Thursday, April 05, 2012 12:58:11 PM

Item ID: D135-751-011

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Skidtube Installation

Start Date: 4/5/2012 Start Qty: 1.00 \*1\*

Cust Item ID:

Required Date: 4/13/2012 Req'd Qty: 1.00 \*1\*

Customer:

Reference:

Approvals: Process Plan: P Date: 12-04-5 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D3492	C
D3507	Rev C

0.00

0.00

100

\*100\*

DC

Document Control

DOCUMENT CONTROL

Memo

Photocopy bluefile & type labels per PPP D135-751-011

CHG001

8/22/05/01

MLT 12-5-1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 82724

**\*82724\***

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**\*1\***

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**\*1\***

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Run Start **\*NR1\***

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

120

0.00

**\*120\***

Skidtubes

Skidtubes

0.00

Skidtubes

Memo

1-Cut Aft end as per dwg D3507

2-Deburr ends

3-Drill Aft & Fwd Cap holes using DT8678 & DT8901

4-Locate DT8870 & Drill Ground wire hole on top of Tube.

6-Locate DT8870 with #30 cleco in Ground wire hole, then Pilot Drill all X-Bolt holes using #30" drill. \*\*\*\*DO NOT OPEN AFT CAP HOLES\*\*\*\*

7-Open crossbolt holes to 0.3125" (3 per side). Drill pilot holes for wearplates using Dt8868, Use DT8892 FOR REAR WEARPLATE HOLES.

8-Open six rear wearplate holes using DT8892. Open holes to 0.297"

9-Open Aft & Fwd Cap holes using .208" drill.

10-Bore out aft end of tube as per Dwg D3507 & Detail "B".

11-Open ground wire hole .297" section E-E

12- Section G-G holes must be laid out manually, open to #30.

13-Deburr holes.

SAD

12-04-16

12-04-13

12-04-13

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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Start Date: 4/5/2012 Start Qty: 1.00 **\*1\***

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Customer:

Reference:

Run Start **\*NR1\***

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	QC5- Inspect part completeness to step on W/O	0.00							
<b>*140*</b>									
QC	Memo	0.00							
Quality Control									
150	Chemical Conversion Coat per QSI005 4.1	0.00							
<b>*150*</b>									
HandFinish	Memo	0.00							
Hand Finishing									
160	QC7-Inspect Chemical Conversion Coat	0.00							
<b>*160*</b>									
QC	Memo	0.00							
Quality Control									

8-2-16

ⓧ

7/6 12-4-18

12-4-18

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Run Start \*NR1\*

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Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

170

\*170\*

Skidtubes

Skidtubes

Skidtubes

Memo

1-Open X-Bolt holes to .375"(2Places) & .500"(2Places) as per Dwg D3507 and Detail "F"

2-Counter Sink X-BOLT holes as per Dwg D3507

3-Deburr and blow out chips from inside of tube.

4-Bond web as per Dwg D3507 & QSI 015

A/R 241 Sike Flex Batch: 121221

Exp Date: 13/01/09

start time: 12/04/18

end time: 12/04/20

5-Weld x-bolt (D3504-1-3)spacers as per Dwg D3507 and Detail C-C & D-D.

A/R AL ROD Batch: M120167

6-Grind welds flush

7-Drill Rivet Holes as per Dwg D3507 Using Dt8871A&B

8-Deburr Rivet holes.

DC 12/04/18

- DC 12/04/18

BE 12/04/20

CC 12-4-23/ DC 12/04/23

DC/CC 12-4-24  
12/04/24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Cust Item ID:

Required Date: 4/13/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Run Start

**\*NR1\***

Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop

**\*NR2\***

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

180

QC10- Inspect visual per QS1004- ground welds

0.00

**\*180\***

QC

Memo

0.00

Quality Control

1X

Ø

12-04-24

190

Skidtubes

0.00

**\*190\***

Skidtubes

Memo

0.00

Skidtubes

1-Rivet D3506-1/-3 as per Dwg D3507.

U/ND

12-4-24

200

QC5- Inspect part completeness to step on W/O

0.00

**\*200\***

QC

Memo

0.00

Quality Control

Scrub/24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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**\*82724\***

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Thursday, April 05, 2012 12:58:11 PM

Item ID: D135-751-011 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Skidtube Installation  
 Start Date: 4/5/2012 Start Qty: 1.00 **\*1\*** Cust Item ID:  
 Required Date: 4/13/2012 Req'd Qty: 1.00 **\*1\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210	Pressure Wash per QSI005 4.3	0.00							
<b>*210*</b>									
HandFinish	Memo	0.00							
Hand Finishing	Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.								
220	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
<b>*220*</b>									
Powdercoat	Memo	0.00							
Powder Coating	START TIME: <u>1:45</u> OVEN TEMPERATURE: <u>320 °F</u> FINISH TIME: <u>2:15</u>								
230	QC3- Inspect Part Finish	0.00							
<b>*230*</b>									
QC	Memo	0.00							
Quality Control									

Handwritten notes and stamps:

- 7/6 12-4-25
- 1X 0 12/4/25
- 1X d 12/01/26

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Item ID: D135-751-011

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**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Skidtube Installation

Start Date: 4/5/2012 Start Qty: 1.00 **\*1\***

Cust Item ID:

Required Date: 4/13/2012 Req'd Qty: 1.00 **\*1\***

Customer:

Reference:

Run Start **\*NR1\***

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

260

0.00

**\*260\***

HandFinishing

0.00

HandFinish

Memo

Hand Finishing

1- Install Wearplate & Ground Wire inserts as per Dwg D3507.

1- Inspect for Foreign objects

2- Install Fwd & Aft caps as per Dwg D3507 And Detail "A" & "B"

A/R 241 Sika Flex Batch: 11121221  
Exp Date: 13/01

3- Install Wearplates as per Dwg D3507,

Note: Install (1) Bolt and (1) washer on Ground Wire insert on top of tube  
Do not Install Screws where indicated on Dwg (Note #6)

A/R 241 Sika Flex Batch: 11121221  
Exp Date: 13/01

4- assemble o'ring to plug as per dwg D3492 and apply o'ring lube

A/R 55-o'ring lube batch: 1110348

5- Wing Walk as per Dwg D3507 and QSI 005 4.4

Batch: 1120950

1 x d 11/04/12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**\*82724\***

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**\*NS1\***

Revision ID:

Stop

**\*NS2\***

Item Name: Skidtube Installation

Start Date: 4/5/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 4/13/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Run Start

**\*NR1\***

Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop

**\*NR2\***

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

270

QC5- Inspect part completeness to step on W/O

0.00

**\*270\***

QC

Memo

0.00

Quality Control

280

Pick Kit

0.00

**\*280\***

Packaging

Memo

0.00

Packaging

290

QC4- 100% Inspect kits for completeness

0.00

**\*290\***

QC

Memo

0.00

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Start Date: 4/5/2012 Start Qty: 1.00 **\*1\***

Cust Item ID:

Required Date: 4/13/2012 Req'd Qty: 1.00 **\*1\***

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Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
300	Packaging	0.00							
<b>*300*</b>									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D135-751-011								
	Location: _____								
	PPP Rev: <u>B</u>								
310	QC21- Final Inspection - Work Order Release	0.00							
<b>*310*</b>									
QC	Memo	0.00							
Quality Control									

1X

SP

12-05-01

12/5/11

UMF 12-05-01

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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# Picklist Print

Thursday, April 05, 2012 12:58:15 PM

Page 1

Work Order ID: 82724

\*82724\*

Parent Item: D135-751-011

\*D135-751-011\*

Parent Item Name: Skidtube Installation

Start Date: 4/5/2012

Required Date: 4/13/2012

Start Qty: 1.00

Required Qty: 1.00

## Comments:

IPP Rev:A06-06-21New Issue JLM  
 IPP Rev:B 06-12-18 As per Rev B JLM  
 IPP Rev:C 07-12-11 ECN 1036 as per revB DD  
 IPP Rev D 08.11.04 Added DT9431 to sequence 5 EC vcerified DD  
 IPP Rev E 10.02.22 per pAR 09-043 EC verified by: DD IPP Rev:F  
 10.06.09 remove seq110 DD verf:EC IPP Rev G 10.09.17  
 added D3507-1-bent EC verified by:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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ALS7-1032-130

Purchased

No

Each

318.0000

38

\*AI S7-1032-130\* X

Insert

ALS-4-1032-130

\*\*

41 12/04/26

### Location

### Loc Qty

### Loc Code

ST280

165

117717

27

118966

22

119775

116

ST282

153

119530

73

120181

80

M120837 X38

D3507-1-BENT

Manufactured

No

120

Each

7.0000

1

\*D3507-1-BENT\*

Skidtube Assembly EC135

\*\*

1 20 12-04-13

### Location

### Loc Qty

### Loc Code

LG

7

75264

2

75265

2

77441

1

77443

2

1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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**\*82724\***

Parent Item: D135-751-011

**\*D135-751-011\***

Parent Item Name: Skidtube Installation

Start Date: 4/5/2012

Required Date: 4/13/2012

Start Qty: 1.00

Required Qty: 1.00

D3504-1 Manufactured No

170 Each 21.0000 2 2

**\*D3504-1\***

Crossbolt Spacer

\*\*

BE 12/04/20

B 82725 x 2

Location Loc Qty Loc Code

LG001 21

53742 2

75240 19

D3504-3 Manufactured No

170 Each 11.0000 1 1

**\*D3504-3\***

Crossbolt Spacer

\*\*

BE 12/04/20

B 82726 1

Location Loc Qty Loc Code

LG001 11

53743 11

D3504-5 Manufactured No

170 Each 15.0000 2 2

**\*D3504-5\***

Crossbolt Spacer

\*\*

BE 12/04/20

Location Loc Qty Loc Code

LG001 15

76239 15

D3505-1 Manufactured No

170 Each 3.0000 1 1

**\*D3505-1\***

Web

\*\*

DC 12/04/12

Location Loc Qty Loc Code

LG 2

75256 2

LG001 1

75211 1

(1)

Thursday, April 05, 2012 12:58:16 PM

Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
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**NOTE:** Date & initial all entries

**Picklist Print**

Page 3

Thursday, April 05, 2012 12:58:16 PM

Work Order ID: 82724

**\*82724\***

Parent Item: D135-751-011

**\*D135-751-011\***

Parent Item Name: Skidtube Installation

Start Date: 4/5/2012

Required Date: 4/13/2012

Start Qty: 1.00

Required Qty: 1.00

D3506-1 Manufactured No

190

Each

44.0000

4

**\*D3506-1\***

\*\*

Doubler

LocationLoc QtyLoc Code

ST051

44

8

36



D3506-3 Manufactured No

190

Each

57.0000

2

**\*D3506-3\***

\*\*

Doubler

LocationLoc QtyLoc Code

ST051

57

57

51790

MS20601-AD4W3 Purchased No

190

Each

2,172.000

12

**\*MS20601-AD4W3\***

\*\*

Rivet

LocationLoc QtyLoc Code

ST321

2172

2172

114538

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Page 3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

Page 4

Thursday, April 05, 2012 12:58:16 PM

Work Order ID: 82724

**\*82724\***

Parent Item: D135-751-011

**\*D135-751-011\***

Parent Item Name: Skidtube Installation

Start Date: 4/5/2012

Required Date: 4/13/2012

Start Qty: 1.00

Required Qty: 1.00

ALS4-1032-225

Purchased

No

260

Each

2,469.000

1

1

**\*AI S4-1032-225\***

\*\*

yl 12/04/26

Insert

Location

Loc Qty

Loc Code

ST281

2446

108696

146

110768

62

118386

55

118966

68

120671

115

121269

2000

ST282

23

120410

10

120451

13

X1

AN3C4A

Purchased

No

260

Each

3,020.000

31

31

**\*AN3C4A\***

\*\*

yl 12/04/26

BOLT

Location

Loc Qty

Loc Code

ST350

3020

120187

1982

120769

38

121205

1000

X31

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Shop Packet Print

Page 4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

# Picklist Print

Page 5

Thursday, April 05, 2012 12:58:16 PM

Work Order ID: 82724

**\*82724\***

Parent Item: D135-751-011

**\*D135-751-011\***

Parent Item Name: Skidtube Installation

Start Date: 4/5/2012

Required Date: 4/13/2012

Start Qty: 1.00

Required Qty: 1.00

AN3C5A Purchased No

260

Each

1,600.000

2

2

**\*AN3C5A\***

Bolt

X

\*\*

Handwritten: 12/04/26

Location

Loc Qty

Loc Code

FP001

7

115835

7

ST350

1593

116419

28

117343

13

117764

7

117872

2

119749

23

120423

520

1210168

500

121255

500

Handwritten: X2

AN526C1032R10

Purchased

No

260

Each

219.0000

2

2

**\*AN526C1032R10\***

Screw

\*\*

Handwritten: 12/04/26

Location

Loc Qty

Loc Code

FP002

79

108062

79

ST348

140

110049

40

114494

100

Handwritten: X2

AN960C10L

NAS1149C0332

Purchased

No

260

Each

0.0000

33

33

**\*AN960C10L\***

washer

R

X

\*\*

Handwritten: 12/04/26

Thursday, April 05, 2012 12:58:16 PM

Shop Packet Print

Page 5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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# Picklist Print

Page 6

Thursday, April 05, 2012 12:58:16 PM

Work Order ID: 82724

**\*82724\***

Parent Item: D135-751-011

**\*D135-751-011\***

Parent Item Name: Skidtube Installation

Start Date: 4/5/2012

Required Date: 4/13/2012

Start Qty: 1.00

Required Qty: 1.00

D2965

Manufactured No

260

Each

59.0000

1

1

**\*D2965\***

Cap, 105 Skidtube

\*\*

HL 12/04/26

Location

Loc Qty

Loc Code

FP002

59

71371

9

80089

50

D2965-3

Manufactured No

260

Each

8.0000

1

1

**\*D2965-3\***

Cap

\*\*

HL 12/04/26

Location

Loc Qty

Loc Code

FP002

8

50560

1

75254

7

D3492-1

Manufactured No

260

Each

30.0000

4

4

**\*D3492-1\***

Plug

\*\*

HL 12/04/26

Location

Loc Qty

Loc Code

FP002

30

69531

8

74444

2

76235

4

77037

16

D3492-3

Manufactured No

260

Each

1.0000

4

4

**\*D3492-3\***

Plug

\*\*

HL 12/04/26

Location

Loc Qty

Loc Code

FP-A

1

78600

1

1383099

X4

Thursday, April 05, 2012 12:58:16 PM

Shop Packet Print

Page 6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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# Picklist Print

Thursday, April 05, 2012 12:58:16 PM

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Work Order ID: 82724

**\*82724\***

Parent Item: D135-751-011

**\*D135-751-011\***

Parent Item Name: Skidtube Installation

Start Date: 4/5/2012

Required Date: 4/13/2012

Start Qty: 1.00

Required Qty: 1.00

D3492-7

Manufactured No

260

Each

32.0000

2

2

**\*D3492-7\***

Plug

\*\*

*M 12/04/12*

Location

Loc Qty

Loc Code

FP002

32

71881

8

77222

24

*X2*

D3508-1

Manufactured No

260

Each

11.0000

1

1

**\*D3508-1\***

Wearplate

\*\*

*M 12/04/12*

Location

Loc Qty

Loc Code

FP002

11

72933

11

*X1*

D3508-3

Manufactured No

260

Each

12.0000

1

1

**\*D3508-3\***

Wearplate

\*\*

*M 12/04/12*

Location

Loc Qty

Loc Code

FP001

12

38527

1

81347

11

*X1*

D3508-5

Manufactured No

260

Each

15.0000

1

1

**\*D3508-5\***

Wearplate

\*\*

*M 12/04/12*

Location

Loc Qty

Loc Code

FP001

15

71688

6

72416

9

*X1*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Thursday, April 05, 2012 12:58:16 PM

Work Order ID: 82724

**\*82724\***

Parent Item: D135-751-011

**\*D135-751-011\***

Parent Item Name: Skidtube Installation

Start Date: 4/5/2012

Required Date: 4/13/2012

Start Qty: 1.00

Required Qty: 1.00

D3508-7 Manufactured No

260

Each

12.0000

1

1

**\*D3508-7\***

Wearplate

\*\*

xl 12/04/26

Location

Loc Qty

Loc Code

FP001

12

76265

12

xl

D3558-1 Manufactured No

260

Each

9.0000

1

1

**\*D3558-1\***

Gasket

\*\*

xl 12/04/26

Location

Loc Qty

Loc Code

FP002

9

50925

1

73561

8

xl

D3558-3 Manufactured No

260

Each

13.0000

1

1

**\*D3558-3\***

Gasket

\*\*

xl 12/04/26

Location

Loc Qty

Loc Code

FP

12

82312

12

xl

FP002

1

71651

1

xl

D3558-5 Manufactured No

260

Each

11.0000

1

1

**\*D3558-5\***

Gasket

\*\*

xl 12/04/26

Location

Loc Qty

Loc Code

FP002

11

75255

11

xl

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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# Picklist Print

Page 9

Thursday, April 05, 2012 12:58:16 PM

Work Order ID: 82724

**\*82724\***

Parent Item: D135-751-011

**\*D135-751-011\***

Parent Item Name: Skidtube Installation

Start Date: 4/5/2012

Required Date: 4/13/2012

Start Qty: 1.00

Required Qty: 1.00

D3558-7 Manufactured No

260

Each

9.0000

1

1

**\*D3558-7\***

Gasket

\*\*

*ll 12/05/26*

Location

Loc Qty

Loc Code

FP002

9

75249

9

NAS1611-007

Purchased

No

260

Each

264.0000

2

*x1*  
2

**\*NAS1611-007\***

O-RING

\*\*

*ll 12/05/26*

Location

Loc Qty

Loc Code

FP001

264

103697

264

NAS1611-010

Purchased

No

260

Each

259.0000

4

*x2*  
4

**\*NAS1611-010\***

O-RING

\*\*

*ll 12/05/26*

Location

Loc Qty

Loc Code

FP

50

110915

0

120770

50

FP001

209

110915

14

117460

8

118077

1

118612

3

119438

47

120986

50

121166

36

121259

50

*x4*

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Page 9

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

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Thursday, April 05, 2012 12:58:16 PM

Work Order ID: 82724

**\*82724\***

Parent Item: D135-751-011

**\*D135-751-011\***

Parent Item Name: Skidtube Installation

Start Date: 4/5/2012

Required Date: 4/13/2012

Start Qty: 1.00

Required Qty: 1.00

NAS1611-013

Purchased

No

260

Each

250.0000

4

4

**\*NAS1611-013\***

O-RING

\*\*

*Handwritten: 12/05/12*

Location

Loc Qty

Loc Code

FP001

250

116582

5

117291

2

117887

53

119623

36

120910

4

121166

100

121259

50

*Handwritten: 14*

AN3C4A

Purchased

No

280

Each

3,020.000

8

8

**\*AN3C4A\***

BOLT

\*\*

*Handwritten: 18*

*Handwritten: 18*

Location

Loc Qty

Loc Code

ST350

3020

120187

1982

120769

38

121205

1000

*Handwritten: 8*

AN960C10L

NAS1149C0332

Purchased

No

280

Each

0.0000

8

8

**\*AN960C10L \***

washer

D3512-1

Manufactured

No

280

Each

5.0000

2

2

**\*D3512-1\***

Wearplate

\*\*

*Handwritten: 11/2/09*

*Handwritten: 12/4/30*

\*\*

*Handwritten: B81352*

*Handwritten: 12/4/30*

Location

Loc Qty

Loc Code

ST500

5

74735

5

Thursday, April 05, 2012 12:58:16 PM

Shop Packet Print

Page 10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

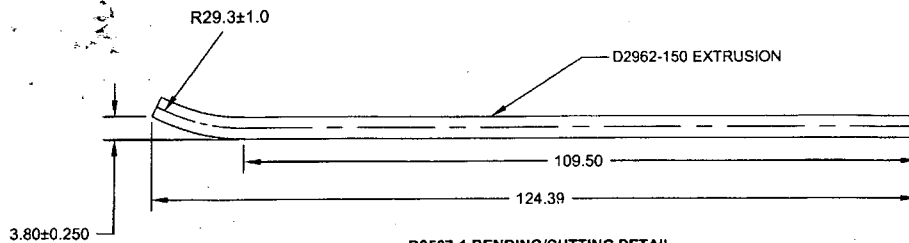
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

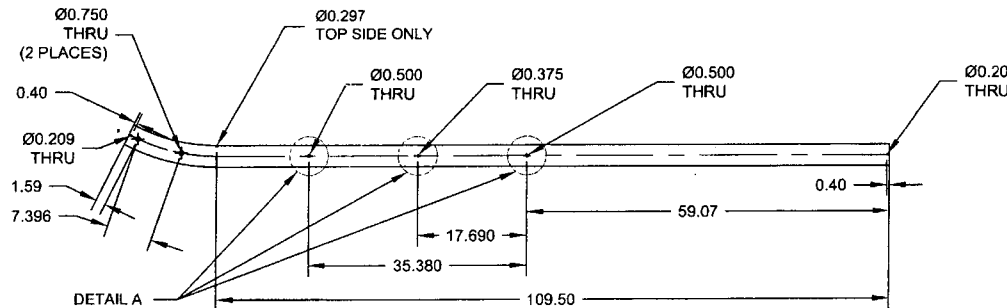
**NOTE:** Date & initial all entries

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 82729

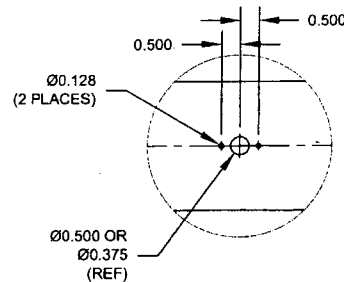
1012-045



D3507-1 BENDING/CUTTING DETAIL



D3507-1 DRILLING DETAIL



DETAIL A  
(TYP. 6 PLACES)  
SCALE 3:10

Qty	Part Number	Description
X	D3507-041	SKIDTUBE ASSEMBLY
1	D2962-150	EXTRUSION
1	D2965	CAP
1	D2965-3	CAP
4	D3492-041	PLUG ASSEMBLY
4	D3492-043	PLUG ASSEMBLY
2	D3492-047	PLUG ASSEMBLY
2	D3504-1	CROSS BOLT SPACER
1	D3504-3	CROSS BOLT SPACER
2	D3504-5	CROSS BOLT SPACER
1	D3505-1	WEB
4	D3506-1	DOUBLER
2	D3506-3	DOUBLER
1	D3508-1	WEARPLATE
1	D3508-3	WEARPLATE
1	D3508-5	WEARPLATE
1	D3508-7	WEARPLATE
1	D3558-1	GASKET
1	D3558-3	GASKET
1	D3558-5	GASKET
1	D3558-7	GASKET
38	AELS-1032-130	INSERT
1	AELS-1032-225	INSERT
31	AN3C4A	BOLT
2	AN3C5A	BOLT
2	AN526C1032-10	SCREW
33	AN960C10L	WASHER
12	MS20601AD4W3	RIVET

GENERAL NOTES:

- FINISH:  
CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSERTING  
D3505-1 WEB. POWDER COAT ASSEMBLY GLOSS WHITE (REF 4.3.5.1) PER DART  
QSI 005 4.3. ANTI-SKID PAINT AS INDICATED TO 1.00 ABOVE CENTER LINE PER  
DART QSI 005 4.4
- TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- DIMENSIONS: INCHES UNLESS OTHERWISE NOTED
- WELDING TO BE DONE PER DART QSI 004
- INSERT D3505-1 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND  
WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/-291 ADHESIVE PER  
DART QSI 015 AFTER BENDING
- USE DART DRILL TEMPLATE DT8868 TO LOCATE AND DRILL Ø0.297 HOLES (38  
PLACES) FOR WEARSHOE INSERTS. INSTALL AELS-1032-130 PER SECTION C-C (38  
PLACES) AFTER FINISH. SEAL WEARPLATE BOLTS WITH SIKAFLEX-241/-291.
- DO NOT INSTALL AN3C4A BOLTS AND AN960C10L WASHERS IN INDICATED  
LOCATIONS

C	ADD D3504-5, FOR SKID GEAR DEFLECTOR; CHANGE FWD CAP BOLT TO AN526C1032-10 SCREW	DC	07.09.19
B	ADD GASKET, CHANGE HARDWARE MATL	PH	06.11.01
A	NEW ISSUE	PH	06.04.21
REV.	DESCRIPTION	BY	DATE
DESIGN	PH		
DRAWN	JIC		
CHECKED	PH		
MFG. APPR.	EC		
APPROVED	PH		
DE APPR.	PH		
DATE	07.09.19		
<b>DART AEROSPACE USA, INC</b> PORT HADLOCK, WA DRAWING NO. D3507 TITLE EC 135 SKIDTUBE REV. C SHEET 1 OF 2 SCALE NTS COPYRIGHT © 2006 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.			

RELEASED  
07.11.16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries





DESIGN	PH	<b>DART AEROSPACE USA, INC</b>	
DRAWN	SC	<b>PORT HADLOCK, WA</b>	
CHECKED	BA	DRAWING NO.	REV. C
MFG. APPR.	SC	D3507	SHEET 2 OF 2
APPROVED	MP	TITLE	SCALE
DE APPR.	MP	EC 135 SKIDTUBE	1:20
<p align="center"><b>COPYRIGHT © 2006 BY DART AEROSPACE USA, INC</b>  <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND ITS SUPPLY IS TO THE EXPRESS COVENANT THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR CORRECT OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small></p>			
DATE	07.09.19		

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

NO. 247

AWS D17.1.2001  
QUALIFICATION TEST RECORD

Name: Barclay Elliot  
Job number: 66661  
Part number: D135-751-011  
Description: 135 SKID TIRE  
Welding Process: Tig[☒] Mig[ ]  
Base material: Aluminum  
Current: AC[☒] DC[ ]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[ ]  
Penetration: pass[☒] fail[ ]

UNACCEPTABLE

Cracks: pass[☒] fail[ ]  
Undercut: pass[☒] fail[ ]  
Pin holes: pass[☒] fail[ ]  
Overlap (cold lap): pass[☒] fail[ ]  
Porosity (surface): pass[☒] fail[ ]  
Coloration: pass[ ] fail[ ]

Qualifier Pat Jones Date of Test Coupon 11/03/17  
Welder Barclay Elliot Date of Test Coupon 11/03/17

The above named individual is qualified in accordance with AWS D17.1.2001 to weld